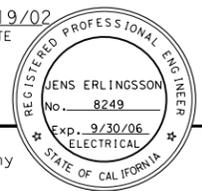




DIST	COUNTY	ROUTE	KILOMETER TOTAL PROJECT	POST SHEET No	TOTAL SHEETS
04	SF	80	13.2/13.9	91R1	1204

12/19/02
 REGISTERED ELECTRICAL ENGINEER DATE
 12-6-04
 PLANS APPROVAL DATE
 PB POWER, Inc.
 A Parsons Brinckerhoff Company
 303 Second St., Suite 700N
 San Francisco, CA 94107-1317
 The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.
 Caltrans now has a web site! To get to the web site, go to <http://www.dot.ca.gov>



SYMBOLS

(See ES-1A and ES-1B for Additional Standard Symbols)

LAYOUT PLAN

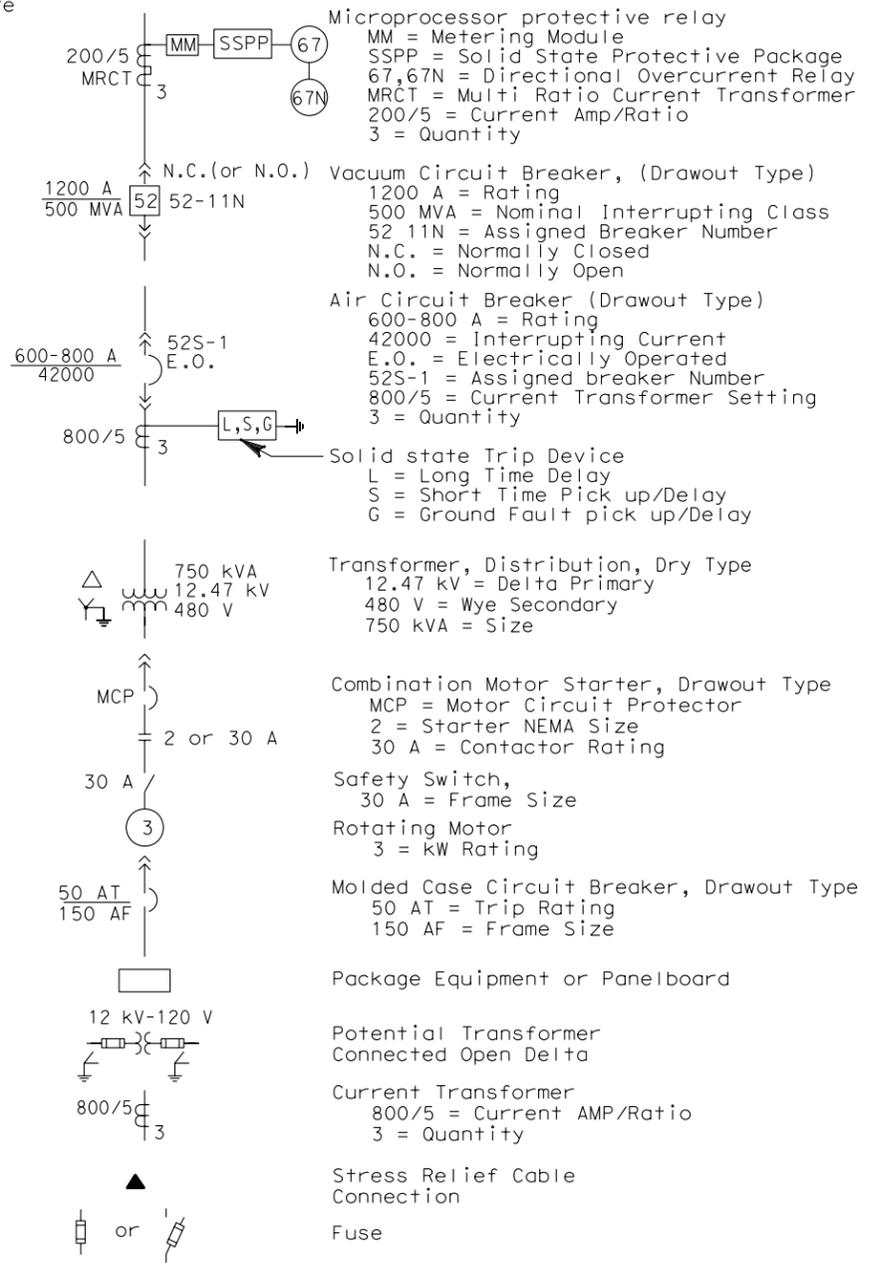
- Barrier Pull Box, for type and size, see Pull Box Schedule
- PB-2A Pull Box
PB-2A for type and size, see Pull Box Schedule
- Conduit Coupling
- Equipment or Material Designation
A=Sequential description
- Sheet Notes, applicable only to the Drawing
1=Sequential number
- Project Notes, Applicable for all Drawings
1=sequential number
- Junction Box, Conduit Fitting
- Electrical Equipment
or Indicated on Plan Drawings
- Pole Mounted Lighting Fixture- See Lighting Pole
Schedule for Type and Quantity
- Fluorescent Lighting Fixture
- Compact Fluorescent Lighting Fixture, Ceiling Mounted or
main cable and suspender base metal halide lighting fixture
- Compact Fluorescent Lighting Fixture
Wall Mounted
- Soffit Lighting Fixture or tower marker light
- Navigation Channel Marker Light - Green Color
- Navigation Pier Marker Light - Red Color
- Aviation Lighting
- Fog Detector
- Fog Horn
- Pole Flood Light
- Single Receptacle, 20 A, 125 V, Straight blade,
with deep single gang weatherproof and threaded cap
- Duplex Receptacle, 125 V, 20 A
MH=450 mm above floor unless noted
GFCI=Ground Fault Circuit Interrupter
WP=Weatherproof
- Single Pole Switch, 120/277 V, 20 A
a - indicates Fixtures controlled
WP - Weatherproof Cover
MH - 1400 mm unless noted
- Three-way switch, 120/277 V, 20 A
a - indicates Fixtures controlled
WP - indicates Weatherproof Cover
MH - 1400 mm unless noted
- Four-way switch, 120/277 V, 20 A
a - indicates Fixtures controlled
WP - indicates Weatherproof Cover
MH - 1400 mm unless noted
- Disconnect Switch
30 A-Frame size
- Conduit turned up
- Conduit turned down
- Conduit or Cable run, exposed
- Conduit run concealed in wall, concrete barrier,
slab or routed underground duct bank
- Combination Expansion - Deflection fittings
- Flexible Conduit
- Cable Tray
- Cables or Conduit down to Equipment
(see plan for conduit number)

- Call Box, State furnished
- Ground Bare Copper Wire, Stranded
- Cable To Cable Exothermic Type Ground
Connections
- Cable Ground Connection to Equipment,
Compression Type
- Cable with Pigtail Ground Connections
(see plan for length)

TRAFFIC OPERATIONS SYSTEMS (TOS)

- CCTV Camera (Mounted at Lighting Pole)
- Changeable Message Sign
- Preformed Loops
- Microwave Vehicle Detection Sensor
(Mounted at Lighting Pole)
- Ramp Meter Signal

SINGLE LINE DIAGRAM



REQUEST FOR INFORMATION NOT ADDRESSED IN THIS CCO REMAIN IN FORCE

MARK	DATE	DESCRIPTIONS	BY	CH'D	CCO#
1	02/19/08	ELECTRICAL MODIFICATIONS	MP	RR	42
REVISIONS					

CONTRACT CHANGE ORDER NO. _____
SHEET _____ OF _____

ELEMENTARY/CONNECTION DIAGRAMS

- Signal Cable with Shield
- Contact, Normally open
- Contact, Normally Closed
- Relay, Mechanical
M = Motor
C = Contactor
42 = Running Circuit Breaker
X or Y = Auxiliary
R = Industrial
TD = Time Delay
PEC = Photo Electric Control
- Motor Starter Overload Relay Thermal Bimetallic Element
(OL-Overload)
- ON/OFF Switch
- DC Batteries
- AC/DC Inverter
(Battery Charger/Rectifier)
- End Resistor and Capacitor
- Photoelectric Sensor
- Communication Cable
Noise Suppressor
- Terminal Block
- Duplex Receptacle
- Cabinet Fluorescent Light

DEVICE NUMBER DEFINITIONS

- 27B 12.47 kV Bus Undervoltage Relay
- 27D DC Undervoltage Relay
- 27F Feeder Undervoltage Relay
- 27UV 480 V Bus Undervoltage Relay
- 42 Running Circuit Breaker
- 43/R Manual Transfer / Remote
- 43/L Manual Transfer / Local
- 49 Thermal Relay
- 50 Instantaneous Overcurrent Relay
- 51 AC Time Overcurrent Relay
- 51/51N Phase and Ground Fault Time
Overcurrent Relay
- 52 AC Circuit Breaker
- 67 AC Directional Overcurrent Relay
- 67N AC Directional Ground Overcurrent Relay
- 86 Lock-Out Relay
- 88 Auxiliary Motor



FOR REVISION ONLY

ELECTRICAL SYMBOLS

NO SCALE

REVISOR: _____ DATE: _____
 DESIGNED BY: _____ CHECKED BY: _____
 BEHZAD GOLEMOHAMMADI
 DESIGN OVERSIGHT
 DEPARTMENT OF TRANSPORTATION
 STATE OF CALIFORNIA
 Caltrans

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS

DGN FILE => T:\13103\MS\pse\SAS Struc\CCO\SAS CC042\04-0120f1_0091R01.dgn
USERNAME => ilorico
CU 04251

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DATE PLOTTED => 4/4/2008
TIME PLOTTED => 2:51:04 PM